

- a) first energy accumulator (20) is removed from vehicle (35),
 - b) a second energy accumulator (20) with a preset level is introduced into vehicle (35),
 - c) the difference in the amount of energy between the first and the second accumulator (20) is determined, and
 - d) a value indicating the difference is transmitted to the data acquisition device.
2. Method according to Claim 1, characterized in that first energy accumulator (20) removed from vehicle (35) is subjected to a function test and/or several additional tests before the recharging process.
3. Method according to Claim 1 or 2, characterized in that preset data from the test or tests are preserved or stored on or in energy accumulator (20).
4. Method according to one of the preceding claims, characterized in that,
- a) after exchange of energy accumulator (20), withdrawal of energy from the second energy accumulator (20) is prevented and/or a drive-away inhibition (22) prevents driving vehicle (35) away, and
 - b) energy withdrawal and/or drive-away inhibition (22) is released via a signal.
5. Method according to one of the preceding claims, characterized in that data related to consumption is detected and transmitted to the data acquisition device.
6. Electric vehicle for operation with an energy accumulator (20), consisting in particular of one or more batteries or capacitors, characterized by an unambiguous label (17) and/or standardized terminals (14, 15) and/or a standardized shape (12), accumulator (20) being accessible on at least one vehicle side and/or from the vehicle bottom.
7. Vehicle according to Claim 6, characterized in that a container (42) is provided that has essentially the cross section of energy accumulator (20) and/or a retaining device for an exchangeable molded element (38).
8. Vehicle according to one of Claims 6 or 7, characterized by a label that indicates the vehicle type and/or the position of energy accumulator (20).
9. Unit for performing the method according to one of Claims 1-5 for supplementing the energy supply, with an access lane and at least one stopping position for a vehicle according to one of Claims 6-8, characterized by at least one device for transporting first energy accumulator (20) away from, and supplying filled second energy accumulator (20) to, the stopping position.
10. Unit according to Claim 9, characterized by a device for detecting the vehicle model.
11. Unit according to one of Claims 9 or 10, characterized by a unit for testing and filling first energy accumulator (20) that has been removed from vehicle (35).
12. Unit according to one of Claims 9-11, characterized by at least one main and one interim storage area for filled energy accumulators (20) in the vicinity of the vehicle stopping position.

13. Unit according to one of Claims 9-12, characterized by at least one device for automatic exchange of energy accumulators (20).

14. Unit according to one of Claims 9-13, characterized in that the vehicle stopping position is located on a transport device that transports vehicle (35) past various work positions.

15. Unit according to one of Claims 9-14, characterized by at least partially subterranean transport means for energy accumulators (20) to transport accumulators (20) between individual storage areas or work stations.

16. Unit according to one of Claims 9-15, characterized in that the unit is integrated with a conventional filling station.

Abstract

The invention relates to a method for supplementing and calculating energy consumed by a vehicle, whereby the amount of energy drawn from a first energy accumulator is replaced.

The aim of the invention is to create a system that enables electrically operated vehicles to be provided with electrical energy within a limited time slot, and payment of said energy.

The inventive method for supplementing and calculating energy consumed by a vehicle can be applied to a vehicle comprising a receiving area for a first energy accumulator, and is characterized in that

- e) the first energy accumulator (20) is removed from the vehicle (35),
- f) a second energy accumulator (20) having a preset level is introduced into the vehicle (35),
- g) the difference between the amount of energy in the first accumulator and in the second accumulator (20) is determined, and
- h) a value indicating said difference is transmitted to a data acquisition device.